REMARKS

The Office Action mailed February 10, 2006 has been reviewed and carefully considered. Claims 1-23 remain pending, the independent claims remaining 1, 3, 12 and 23. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

Claims 1-6, 8-17, 19-22 stand rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,699,444 to Palm.

Claim 1 recites:

> A method for calibrating a camera of a camera-based image processing system, the method comprising the steps of:
> presenting via a graphical user interface a representation of an area in which the camera is to be operated;
> selecting at least one calibration point presented in the representation;
> obtaining, responsively to said selecting, calibration information for each selected point sequentially as the camera is pointed to corresponding positions in the area, wherein, in case of more than one calibration point, the pointing to any next one of said corresponding positions amounts to rotating, in place, around a pan axis of the camera, a tilt axis of the camera or both axes;
> entering, for said each selected point, a command identifying a corresponding position of the selected point within said representation; and
> computing at least one of position and orientation information for the camera based on the obtained calibration information

Palm selects at least one calibration point, i.e., points A, B, C (col. 6, line 49), as the Office Action acknowledges (item 2, page 3, second full sentence).

However, the Office Action mistakenly suggests that the Palm "camera is pointed to corresponding positions in the area" as Palm selects "at least one calibration point presented in the presentation."

The applicant traverses this suggestion by the Office Action.

Instead, the Palm camera is pointed (col. 7, line 28(29): "pointed"; col. 14, line 66: "pointed") at center point T. The center point T is the center point of an object of interest within an image embodied in an image capture medium, such as photographic film or digital array (col. 8, lines 34-35). In capturing the image, e.g., on film, the camera is pointed or aimed (col. 7, line 26: "aimed") at the center point T, and is not pointed elsewhere (col. 7, lines 26-30).

Palm is directed to "determining the location and orientation of . . . one or more cameras at the time" the "images were captured" (col. 5, lines 18(19)-20(21)). Thus, for example, two cameras located (col. 7, line 53: "location") at respective viewpoints f1 and f2 may capture an image of an object of interest (FIG. 1). Each of the cameras is aimed at a center point T at the time of image capture. The captured images are then subject to calculations (col. 8, line 37: "Calculating"). In particular, the three calibration points A, B, C (col. 4, line 57) in the captured image define a triangle with three interior angles. The analysis determines these angles (col. 8, line 47: "angles"). The triangle defines a viewing pyramid (col. 5, line 24: "viewing pyramid"). Based on the determined angles (equations 3-12 in columns 9 and 10), the pyramid defining parameters are calculated (col. 10, line 41: "viewing pyramid is solved"). By subsequent operations, e.g., modifying the pyramid (col. 5, line 25), the camera locations and orientations are determined (col. 5, lines 18-24). More specifically, the orientation of any given camera is a single orientation corresponding to where that camera was aimed (col. 7, line 26: "aimed") or pointed (col. 7, line 28: "pointed") at the time of image capture

(col. 8, line 34: "image capture"). That position where the camera was aimed is center point T (col. 7, line 28).

At least since the Palm camera points at merely a single point T to capture an image, the calibration points A, B, C in the captured image then being analyzed, Palm fails to disclose or suggest "selecting at least one calibration point presented in the representation; obtaining, responsively to said selecting, calibration information for each selected point sequentially as the camera is pointed to corresponding positions in the area. . ."

In addition, claim 1 recites, ". . . wherein, in case of more than one calibration point, the pointing to any next one of said corresponding positions amounts to rotating, in place, around a pan axis of the camera, a tilt axis of the camera or both axes; . . ."

At least since the Palm camera points at merely a single point T (see, e.g., col. 7, line 28(29): "pointed"; col. 14, line 66: "pointed"), Palm fails to disclose or suggest "pointing to any next one of said corresponding positions amounts to rotating, in place. . ." which language explicitly appears in claim 1.

The Office Action is non-responsive to the above discussion.

Firstly, the Office Action falls short of even touching on the topic of center point T, which is discussed in detail above.

Instead, item 2 of the Office Action cites to FIG. 3 in Palm, and erroneously suggests that the illustration of points A, B, C, and the principal point O of the camera, implies "rotating, in place" in the context of:

obtaining, responsively to said selecting, calibration information for each selected point sequentially as the camera is pointed to corresponding positions in the area, wherein, in case of more than one calibration point, the pointing to any next one of said corresponding positions amounts to rotating, in place, around a pan axis of the camera, a tilt axis of the camera or both axes

More particularly and as set forth in more detail in the above discussion, the analysis of calibration points A, B and C in the captured image does not involve moving a camera from point to point. The image has already been captured.

In support of its interpretation of FIG. 3, the Office Action cites merely to FIG. 3, i.e., to no other part of Palm and to no authority whatsoever.

Notably, the Office Action fails to cite to any part of the detailed description that pertains to FIG. 3.

FIG. 3 is discussed in the detailed description at col. 8, lines 3-33; col. 8, line 56 - col. 10, line 41; and col. 11, lines 32-35.

The instant applicants submit that, upon reviewing the Office Action, they see no indication that the Office Action has considered any of the above-mentioned passages in the detailed description that relate to FIG. 3.

In contrast to the Office Action, the above discussion by the applicants refers at various times to the detailed description relating to FIG. 3.

For at least the above reasons, Palm fails to anticipate the present invention as recited in claim 1.

Reconsideration and withdrawal of the rejection is respectfully requested.

Moreover, since Palm methodology is based on pointing at merely a single common point T, it would not have been obvious to modify Palm to resemble the instant claim 1.

Claim 3 recites, ". . . obtaining calibration information for each of at least three calibration points sequentially as the camera is pointed to the corresponding positions in the area. . ."

Claim 12 recites, ". . . to obtain, responsively to said selecting, calibration information for each selected point sequentially as the camera is pointed to corresponding positions in the area. . ."

Claims 3 and 12 also recite, ". . . wherein, in case of more than one calibration point, the pointing to any next one of said corresponding positions amounts to rotating, in place, around a pan axis of the camera, a tilt axis of the camera or both axes; . . ."

Claims 3 and 12 are accordingly deemed to distinguish patentably over Palm for at least the reasons set forth above with regard to claim 1.

Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 7, 18 and 23 stand rejected under 35 U.S.C. 103(a) as unpatentable over Palm.

Claims 7 and 18 depend from base claim 1, and have been shown to distinguish patentably over Palm at least due to their dependency.

Claim 23 recites, ". . . obtaining, responsively to said selecting, calibration information for each selected point sequentially as the camera is pointed to corresponding positions in the area. . ."

Claims 23 also recites, ". . . wherein, in case of more than one calibration point, the pointing to any next one of said corresponding positions amounts to rotating, in place, around a pan axis of the camera, a tilt axis of the camera or both axes; . . ."

Claim 23 is likewise deemed to distinguish patentably over Palm for at least the reasons set forth above with regard to claim 1.

Reconsideration and withdrawal of the rejections is respectfully requested.

Each of the other rejected claims depends from a base claim that has been shown to be patentable and is likewise deemed to be patentable.

However, each relates to a further aspect, and warrants additional consideration based on its individual, particular merits.

For example, claim 2 recites, ". . . said at least one calibration point comprises a single calibration point and the computed information comprises a pan bias for the camera."

The Office Action dismisses the above-quoted aspect of claim 2 as inherent, but cites to no reference or authority for its erroneous proposition.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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